

*Sub B1*  
ABSTRACT OF THE DISCLOSURE

A fixed pattern detection device in the CDMA communication system in which it is possible to shorten the time involved in detecting a fixed pattern from a signal obtained on re-arranging 5 the fixed pattern and inserted at a chip rate as well as to reduce the circuit scale. A device for detecting a fixed pattern, in which the device is fed as a received signal with a pattern of a length of  $N$  chips, the received signal being obtained on dividing and re-arranging each of  $K$  (integer) symbols in terms of a chip period as a unit, each symbol being spread with the spread code (PN) at a rate of  $M$  (integer) chips per symbol, and on repeatedly inserting into the re-arranged symbols a signature pattern of a length  $K$  having one chip period as a unit, by  $M$  times, where  $N=K \times M$ . The signature pattern is detected from the received signal. 10 15 20 The device includes first-stage correlators taking correlation between  $M$  received signals spaced apart from one another at every  $K$  chips, and  $M$  spread code sequences obtained on decimating a spread code sequence of a length  $N$  at every  $K$  chips to output correlation values associated with  $K$  signatures, and a second-stage correlators taking correlation between the correlation values associated with  $K$  signatures output by the first-stage correlators and a pre-defined signature pattern.